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10/597,126	07/12/2006	Joachim Sachs	P18698-US1	6481
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ERICSSON INC. 6300 LEGACY DRIVE M/S EVR 1-C-11 PLANO, TX 75024			EXAMINER ANWAR, MOHAMMAD S	
			ART UNIT 2463	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

melissa.wingo@ericsson.com
kara.coffman@ericsson.com
jennifer.hardin@ericsson.com

Office Action Summary	Application No. 10/597,126	Applicant(s) SACHS ET AL.	
	Examiner MOHAMMAD ANWAR	Art Unit 2463	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection. Please see response below:

In response to applicant arguments, Additionally, the Chapman reference fails to disclose whether the queued data units include the congestion information (this is not a congestion stamp, as the data unit is not provided with the information to signify congestion but to confer a particular status on the data unit). Also, Chapman does not disclose a congestion notification if no data units contain the information, nor does Chapman prevent a congestion notification (see newly cited reference Hadi-Salim et al. disclose congestion existence bit to indicate prior congestion)

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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1. Claims 1, 3, 5, 12, 14, 15, 17 and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Hadi-Salim et al. (U.S. Patent No. 6,625,118 B1).

For claims 1 and 14, Hadi-Salim et al. disclose a method of controlling a queue buffer arranged to queue data units received over a communication network (see column 5 lines 42-45, queue), comprising: invoking a congestion notification procedure under a predetermined condition, wherein said congestion notification procedure comprises determining whether one or more of said queued data units contains a predetermined congestion notification prevention information (see column 7 lines 45-46, CE bit), performing a congestion notification with respect to the one or more queued data units if no queued data units contain said predetermined congestion notification prevention information (see column 7 lines 49-53) and preventing a performance of a congestion notification at least with respect to said the one or more queued data units containing said predetermined information (see Figure 5B, CE bit is predetermined information set to identify congestion, packets are discarded if CE bit is set and thus preventing sending any more congestion, otherwise a process in Figure 5A is followed for marking packets in the Queue which has no CE bit set and need congestion notification) and belonging to a same flow (see column 7 lines 57-58, counter reflects the congestion notifications of flows) as said queued data units (see column 7 lines 45-58).

For claims 3 and 15, Hadi-Salim et al. disclose wherein if the one or more queued data units contain said predetermined information (see Figure 5B (270),

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CE bit), performance of congestion notification with respect to any queued data units is prevented (see Figure 5B (270), CE bit with packets being dropped)

For claims 5 and 17, Hadi-Salim et al. disclose determining whether a flow of data units is[:] either application limited, coming to an end or one or more data units of the flow of data units fulfills a congestion notification prevention condition (see Figure 5B (270), congestion existence bit is set or not in the flows), and if the flow of data units is application limited, the flow is ending or said one or more data units of said flow fulfills said congestion notification prevention condition, setting the predetermined congestion notification prevention information in at least said one or more data units of said flow (see column 7 lines 8-12).

For claims 12 and 24, Hadi-Salim et al. disclose wherein said predetermined congestion notification prevention information is a single bit (see column 6 line 28, CE bit).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hadi-Salim et al. in view of Sindhu et al. (U.S. Patent No. 7,359,321 B1).

For claim 2, Hadi-Salim et al. disclose all the subject matter but fails to mention wherein said performing of said congestion notification with respect to a given data unit comprises one of dropping said given data unit and marking said given data unit with a congestion notifier. However, Sindhu et al. from a similar

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field of endeavor disclose wherein said performing of said congestion notification with respect to a given data unit comprises one of dropping said given data unit and marking said given data unit with a congestion notifier (see Figure 11B, column 2 lines 40-47, a process of marking a packet with congestion notifier or dropping a packet). Thus, it would have been obvious to one ordinary skill in the art at the time of invention was made to include Sindhu et al. dropping and marking scheme into Hadi-Salim et al. congestion notification scheme. The method can be implemented in an ECN/drop logic. The motivation of doing this to provide congestion control (see column 2 lines 40-51).

6. Claims 6 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hadi-Salim et al. in view of Thoo et al. (E.P. No. 0,955,749 A1).

For claims 6 and 18, Hadi-Salim et al. disclose all the subject matter but fails to mention wherein said step of determining whether a congestion notification prevention condition is fulfilled comprises the analyzing of higher layer information. However, Thoo et al. from a similar field of endeavor disclose wherein said step of determining whether a congestion notification prevention condition is fulfilled comprises the analyzing of higher layer information (see paragraph 78 lines 1-20). Thus, it would have been obvious to one ordinary skill in the art at the time of an invention was made to include Thoo et al. analyzing scheme into Hadi-Salim et al. flow control scheme. The method can be implemented in a router or terminal. The motivation of doing this is to control flow

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control accurately and achieve high throughput and less congestion (see paragraph 12 lines 1-4).

7. Claims 7-9 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hadi-Salim et al. in view of Li et al. (U.S. Patent No. 6,741,555 B1).

For claims 7 and 19, Hadi-Salim et al. disclose all the subject matter but fails to mention wherein said congestion notification prevention condition comprises an indication that the flow of data units is coming to an end. However, Li et al from a similar field of endeavor disclose wherein said congestion notification prevention condition comprises an indication that the flow of data units is coming to an end (see column 7 lines 22-23. FIN). Thus, it would have been obvious to one ordinary skill in the art at the time of invention was made to include Li et al. signaling scheme into Hadi-Salim et al. congestion scheme. The method can be implemented in a packet. The motivation of doing this is to supply information specific to protocol (see column 7 lines 2-4).

For claims 8 and 20, Hadi-Salim et al. disclose all the subject matter but fails to mention wherein said congestion notification prevention condition comprises an indication that flow of data units is application limited. However, Li et al. from a similar field of endeavor disclose wherein said congestion notification prevention condition comprises an indication that flow of data units is application limited (see column 7 lines 8-10). Thus, it would have been obvious to

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one ordinary skill in the art at the time of invention was made to include Li et al. signaling scheme into Hadi-Salim et al. congestion scheme. The method can be implemented in a packet. The motivation of doing this is to supply information specific to protocol (see column 7 lines 2-4).

For claims 9 and 21, Hadi-Salim et al. disclose all the subject matter but fails to mention wherein said congestion notification prevention condition comprises an indication that said one or more data units of said flow carry predetermined signaling identifiers. However, Li et al. from a similar field of endeavor disclose wherein said congestion notification prevention condition comprises an indication that said one or more data units of said flow carry predetermined signaling identifiers (see column 7 lines 20-22). Thus, it would have been obvious to one ordinary skill in the art at the time of invention was made to include Li et al. signaling scheme into Hadi-Salim et al. congestion scheme. The method can be implemented in a packet. The motivation of doing this is to supply information specific to protocol (see column 7 lines 2-4).

8. Claims 10, 11, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hadi-Salim et al. in view of Brothers et al. (U.S. Patent No. 6,822,955).

For claims 10 and 22, Hadi-Salim et al. disclose all the subject matter but fails to mention wherein said data unit sender is part of a proxy server. However, Brothers et al. from a similar field of endeavor disclose wherein said data unit sender is part of a proxy server (see Figure 1 (20)). Thus, it would have been

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obvious to one ordinary skill in the art at the time of invention was made to include Brothers et al. proxy server scheme into Hadi-Salim et al. congestion control scheme. The method can be implemented in a server or a router or a switch. The motivation of doing this is to use proxy server to establish communication between a device in a first network and a destination device having an arbitrary address on a second network outside of the first network. The method includes the step of generating an address resolution protocol packet to identify the arbitrary address of the destination device (see column 2 lines 5-11).

For claim 11 and 23, Hadi-Salim et al. disclose all the subject matter but fails to mention wherein said proxy server is connected to a mobile communication network and arranged for receiving data units from a sending end point outside of said mobile communication network and relaying said data units to a receiving end point connected to said mobile communication network.

However, Brothers et al. from a similar field of endeavor disclose wherein said proxy server is connected to a mobile communication network and arranged for receiving data units from a sending end point outside of said mobile communication network and relaying said data units to a receiving end point connected to said mobile communication network (see column 3 lines 52-65).

Thus, it would have been obvious to one ordinary skill in the art at the time of invention was made to include Brothers et al. proxy server scheme into Hadi-Salim et al. flow control scheme. The method can be implemented in a server or router. The motivation of doing this is to use proxy server to establish communication between a device in a first network and a destination device

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having an arbitrary address on a second network outside of the first network. The method includes the step of generating an address resolution protocol packet to identify the arbitrary address of the destination device (see column 2 lines 5-11).

9. Claims 13 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hadi-Salim et al. in view of Agrawal et al. (U.S. Patent No. 7,006, 440).

For claims 13 and 25, Hadi-Salim et al. disclose all the subject matter but fails to mention wherein said predetermined congestion notification prevention information is a data unit count-down value that counts down the number of data units remaining in the flow. However, Agrawal et al. from a similar field of endeavor disclose wherein said predetermined congestion notification prevention information is a data unit count-down value that counts down the number of data units remaining in the flow (see Figure 5 (94), packet counter with drop/pass packet). Thus, it would have been obvious to one ordinary skill in the art at the time of invention was made to include Agrawal et al. counter scheme into Hadi-Salim et al. congestion scheme. The method can be implemented in a packet device. The motivation of doing this is to control buffers based on priority (see column 2 lines 35-36).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MOHAMMAD ANWAR whose telephone

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number is (571)270-5641. The examiner can normally be reached on Monday-Thursday, 9am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derrick W. Ferris can be reached on 571-272-3123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MOHAMMAD ANWAR
Examiner
Art Unit 2463

/M. A./
Examiner, Art Unit 2463

/Derrick W Ferris/
Supervisory Patent Examiner, Art Unit 2463